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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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DAN C HU
TROP PRUNER HU & MILES P C
8554 KATY FREEWAY
SUITE 100
HOUSTON, TX 77024

EXAMINER

PAN, YUWEN

ART UNIT PAPER NUMBER

2681

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/412,099

Applicant(s)

HOSAIN ET AL.

Examiner

Yuwen Pan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3,5,6. 6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "24" has been used to designate both "GSN" and "FA" in figure 1. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "50" has been used to designate both "serving service provider" and "home service provider" in figure 2. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C.

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122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-13, 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Rai et al (US006377982B1).

With respect to claim 1, Rai et al disclose a method of accounting for services provided over a packet-based network including determining a type of service (internet service or wireless service) used over the network (see column 36 and line 45-51); monitoring usage of the service (see column 36 and line 52-67); collecting accounting information based on the type of service and usage of the service (see column 2 line 56 – column 3 line 5, figure 22, and column 31, line 47-column 35, line 64).

With respect to claim 2, Rai et al further disclose transmitting the collected accounting information the at least another entity where the user is roaming. See column 26 and line 6-20.

With respect to claim 3, Rai et al further disclose an identifier (shared secret) with collected accounting information that is common between the first entity and the at least one other entity (see column 35-42).

With respect to claim 4, Rai et al further disclose collecting the accounting information includes compiling the accounting information into an accounting unit (see column 26 and line 47-52).

With respect to claim 5, Rai et al further disclose an accounting unit having a common format for convenient exchange between entities (see column 28 and line 26-37).

With respect to claim 6, Rai et al further disclose an accounting unit including a traffic matrix segment (see column 29 and 30, numbered list only)

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With respect to claim 7, Rai et al further disclose determining the type of service includes determining one of a plurality of service types (see column 38 and line 15-40).

With respect to claim 8, Rai et al further disclose determining one of the plurality of service types include determining one of real-time communication at least another type of service. (see column 16, and line 4-14).

With respect to claim 9, Rai et al further disclose determining a quality of service for communication over the network (see column 5 and lines 18-30).

With respect to claim 10, Rai et al further disclose determining if mobility management is provided for service on the network used by a mobile node (see column 41, line 66-67 and column 42 and line 1-19).

With respect to claim 11-13, Rai et al further disclose determining usage of a radio interface by a mobile node to access the network, a visited network by a mobile node, a packet data protocol to communicate information over the network (see column 9 and lines 1-45).

With respect to claim 15, Rai et al further disclose creating a network access identifier to identify a node using the service (see column 29 and line 4-15).

5. Claims 16-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Rai et al (US006377982B1).

With respect to claim 16, Rai et al disclose a method of accounting for services provided over a packet-based network, including communicating units of accounting information carrying information regarding usage of the packet-based network, the unit of accounting information having a predetermining format capable of being exchanged between a plurality of entities; and

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assigning values to entries in each unit of accounting information based on usage, the unit including an entry indicating a type of service provided over the data network (see column 29 and 30, numbered list only).

With respect to claim 17, Rai et al further disclose information also includes other parameters like quality of service (see column 5 and lines 18-30, column 19 and lines 51-67).

With respect to claim 18, Rai et al further disclose assigning values to entries further includes assigning values to additional entries including entries indicating usage of a radio interface, indicating usage of a visited network, indicating usage of mobile management, an dedicating an amount of data transferred (see column 9 and lines 1-45, column 42 and lines 1-19, column 22 and lines 26-31).

With respect to claim 19, Rai et al further disclose assigning values to entries further includes assigning a value to an additional entry indicating erroneous termination of communication (see column 22 and line 33-39).

6. Claim 21-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Rai et al (US006377982B1).

With respect to claims 21, 27, and 29, Rai et al disclose a system capable of being couple to a packet-based network including a unit to collect usage information based on a service used by a node on the packet-based network (see column 2 and lines 56-67); a storage device containing an accounting unit in which the usage information is collected, the accounting unit including a plurality of entries to identify usage element from which accounting may be derived. (see figure 2, items 48, and column 6 and lines 34-55).

With respect to claim 22, Rai et al further disclose the entries of the accounting unit include an entry identifying a type of serviced used (see column 38 and line 15-40).

With respect to claim 23, Rai et al further disclose the entries of the accounting unit include an entry identifying a quality of service used (see column 19 and lines 51-67).

With respect to claim 24 and 25, Rai et al further disclose the entries of the accounting unit include entries indicating elements used by a mobility management, usage of a visited network, a traffic segment (see column 41, line 66-67, column 42 and line 1-19, column 9 and lines 1-45, column 29 and 30, numbered list only).

With respect to claim 26, Rai et al further disclose the accounting unit is according to a predetermined format the system further including a unit to communicate the accounting unit to another entity (see column 28 and line 26-37).

With respect to claim 28, Rai et al further disclose the accounting processor is adapted to generated billing to a subscriber base on one or more of the accounting units (see column 28 and lines 9-20).

With respect to claim 30, Rai et al further disclose the one or more storage media contain instructions that when executed causes the system to further communicate the accounting units to another entity (see column 26 and line 6-20, column 28 and line 26-37).

7. Claim 31 rejected under 35 U.S.C. 102(e) as being anticipated by Rai et al (US006377982B1). Rai et al disclose a data network with an accounting system including at least two entities (home network and foreign network), the data with on or more code segments (see column 29 and 30, numbered list only) for services used on a packet based data network, the

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instructions when executed causing a system to receive accounting units from at least another entity; determine, from each accounting unit, usage of a service on the packet based network; and charging at least a subscriber for the usage of the service (see column 2 and lines 56-67).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 14, 32, 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rai et al (US006377982B1) in view of Brown (US005740361A).

With respect to claim 14, Rai et al disclose a method of accounting as cited in claim 1, Rai et al do not disclose determining a metering class of the service that indicates if the service is chargeable. Brown discloses determining a metering class of the service that indicates if the service is chargeable. See column 13, line 56 –column 14, line 9 and column 16, line 22-54. It would have been obvious to one of ordinary skill in the art at the invention was made to combine the teaching of Brown with Rai et al such that information in the information field permits the service to distinguish whether the service is chargeable (see column 13 and line 56-65).

With respect to claim 32 and 33, Rai et al disclose the data structure includes a plurality of entries, the entries including a type of service, a second field indicating if the service is chargeable, a third field including an identifier identifying a node using the service, a field indicating if mobility management is provided for the node, a field indicating usage of a radio

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interface by the node, and a field indicating usage of a visited network by the node. See column 9 and lines 1-45; column 41, line 66-67 and column 42, line 1-19. Brown further discloses a field indicating if the service is chargeable (see column 13 and line 56-65).

10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rai et al (US006377982B1) in view of Stephens et al. (US006347079B1).

Rai et al disclose a method of accounting as cited in claims 1, 16-19. Rai et al do not disclose assigning values to entries further includes assigning a value to an additional entry indicating an amount of discarded data. Stephens et al disclose the possibility of discarded data is indicated (see column 1 and lines 22-28). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Stephens et al with Rai et al such that the network is acknowledge the amount of data is discarded.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuwen Pan whose telephone number is 703-305-7372. The examiner can normally be reached on 8-5 M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on 702-305-4778. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

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Yuwen Pan
December 13, 2002


NAY MAUNG
PRIMARY EXAMINER